
DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife
and Plants; Determination of
Threatened Status and Critical Habitat
for the Big Spring Spinedace**

AGENCY: Fish and Wildlife Service,
Interior.

ACTION: Final rule.

SUMMARY: The Service determines the Big Spring spinedace (*Lepidomeda mollispinis pratensis*) to be threatened and delineates its critical habitat. This action is being taken because one population of this fish has been

eliminated and the one remaining population is potentially threatened by habitat alteration and the possible introduction of exotic species. Also, the present limited distribution of the existing population leaves it vulnerable to extirpation by a major flood or severe drought. The Big Spring spinedace occurs in a single location, Meadow Valley Wash in Condor Canyon, northeast of Panaca, Nevada, which is being designated as critical habitat. A special rule allowing take for certain purposes in accordance with State laws and regulations is included. This final rule will implement the protection provided by the Endangered Species Act of 1973, as amended.

DATES: The effective date of this rule is April 29, 1985.

ADDRESSES: The complete file for this rule is available for inspection during business hours at the U.S. Fish and Wildlife Service, Suite 1692, Lloyd 500 Building, 500 NE. Multnomah Street, Portland, Oregon 97232.

FOR FURTHER INFORMATION CONTACT: Mr. Wayne White, Chief, Division of Endangered Species, U.S. Fish and Wildlife Service, Suite 1692, Lloyd 500 Building, 500 NE. Multnomah Street, Portland, Oregon 97232 (503/231-6131 or FTS 429-6131).

SUPPLEMENTARY INFORMATION:

Background

The big Spring spinedace (*Lepidomeda mollispinis pratensis*) is one of seven taxa belonging to the Plagopterini, a unique tribe of cyprinid fishes. The fishes of this tribe are restricted to the lower Colorado River System and are characterized by the possession of two spiny rays in the dorsal fin and reduction in scales in some species (Miller and Hubbs, 1960; Uyeno and Miller, 1973). The Big Spring spinedace is the representative of this tribe within Meadow Valley Wash. During pluvial times, 10,000 to 40,000 years ago the area referred to as Meadow Valley Wash contained Lake Carpenter, and its outflow river, the Carpenter River (Hubbs *et al.*, 1974). The Carpenter River flowed into the Colorado River by way of the White River, and as these waters dried the spinedace was restricted to remnant habitats that retained water.

When the Big Spring spinedace was originally described, it was known only from specimens collected in the 1930's from a marshy area adjacent to Big Spring near Panaca, Nevada (Miller and Hubbs, 1960). By the time of the description in 1960, it was believed that the fish was extinct. Agricultural modification of the area as well as the

introduction of the exotic mosquitofish, *Gambusia affinis*, had apparently caused its extinction from the marsh and spring area (Miller, 1961; Miller and Hubbs, 1960).

During 1978, personnel from the Nevada Department of Wildlife discovered a few individuals of this "extinct" subspecies in Condor Canyon, just northeast of Panaca. Condor Canyon is a small area of Meadow Valley Wash with perennially flowing water. Since the discovery of the Condor Canyon population, some of the fish have been transplanted above a barrier falls and now occur in most of the available habitat within Condor Canyon. The relocation of fish above the barrier falls was carried out by the Nevada Department of Wildlife (Hardy, 1980a). However, the available habitat within the approximately 4-mile-long Condor Canyon is limited. This restricted habitat is threatened by the possible introduction of exotic species and by habitat alteration. The habitat could also be threatened by a major flood (Cal Allan, Nevada Department of Wildlife, retired, pers. comm.; Hardy, 1980b) or a severe drought. Renovation of former habitat in areas downstream from the area where it presently occurs could reduce this threat.

The Big Spring spinedace was included in the Service's Notice of Review of Vertebrate Wildlife published December 30, 1982 (47 FR 58454). The Service received a petition from the Desert Fishes Council on April 12, 1983, to add the Big Spring Spinedace to the List of Endangered and Threatened Species. The petition was evaluated and found to present substantial information supporting the petitioned action, and a notice of finding to this effect was published on June 14, 1983 (48 FR 27273). A proposal to list the Big Spring spinedace as threatened with critical habitat was published on November 30, 1983 (48 FR 54082).

Summary of Comments and Recommendations

In the November 30, 1983, proposed rule (48 FR 54082), and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. A notice was published in the following newspapers: *Las Vegas Review Journal* (December 26, 1983), *Ely Daily Times* (December 29, 1983), and *Lincoln County Record* (December 29,

1983). Six letters of comment were received and are discussed below.

Comments were received from The Nature Conservancy, Nevada State Office of Community Services; Nevada Department of Wildlife (NDOW); Nevada Division of State Parks; Nevada Wildlife Federation; and Dr. James E. Deacon, University of Nevada, Las Vegas. All comments supported the proposed rule. The Nevada Division of State Parks pointed out that 40 acres at the upper end of Condor Canyon are owned by The Nature Conservancy, and that Condor Canyon is on the Nevada National Heritage Site list but is not afforded any extra protection by such designation. The Nature Conservancy expressed an interest in a further, clearer definition of the boundaries of the critical habitat area and in working with agencies in the future to protect the spinedace. The Service is satisfied that the critical habitat description adopted in the final rule is sufficiently precise to alert Federal agencies of their consultation responsibilities under Section 7(a)(2). NDOW commented that several introduced game fishes are present upstream of the proposed critical habitat in several miles of stream and two reservoirs. NDOW expressed concern that these areas support an important recreational fishery, and that listing of the Big Spring spinedace should consider any possible consequences to this fishery. The Service notes that it may only consider scientific and commercial data in making a listing determination; consideration of economic or other impacts is appropriate only for critical habitat designation. Nevertheless, the Service responds that no known effect(s) on the existing fishery upstream of Condor Canyon will occur because of listing as a threatened species with critical habitat. Since the presence of exotic fishes is an identified threat to the Big Spring spinedace, the accidental introduction of upstream fishes into Condor Canyon during periods of high runoff is a possibility. Such an occurrence appears highly unlikely, however, since the upstream reservoir fishery has existed for many years, yet no non-native fishes are known to have successfully established populations within Condor Canyon. In the unlikely event that fishes from upstream reservoirs became established, prompt removal of the exotics within the spinedace habitat would be required and would necessitate coordination and agreement between responsible agencies, (U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and (NDOW).

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Big Spring spinedace should be classified as a threatened species. Procedures found at Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424) were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the Big Spring spinedace (*Lepidomeda mollispinis pratensis*) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Prior to the mid-1930's, Big Spring flowed unrestricted to the west and south creating a substantial marsh area adjacent to the spring. During the 1930's spinedace were collected from this marsh and these fish were subsequently described as a new subspecies, *Lepidomeda mollispinis pratensis* (Miller and Hubbs, 1960). Visits by ichthyologists to the marsh area during 1959 revealed that the spinedace had been eliminated because of diversion of the water for agricultural purpose, and the introduction of the exotic mosquitofish. Currently, Big Spring flows toward the north and west in a highly modified canal system (Cal Allan, Nevada Department of Wildlife, retired pers. comm.).

The Big Spring spinedace is presently known from one locality, Meadow Valley Wash in Condor Canyon. This restricted habitat could be easily disrupted by a reduction or alteration in water flow. Activities such as overgrazing, groundwater pumping, diversion and channelization of the stream, loss of riparian vegetation, or a combination of these factors could result in the Big Spring spinedace becoming endangered.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Not applicable.

C. Disease or predation. Not applicable.

D. The inadequacy of existing regulatory mechanisms. Although Nevada State law adequately regulates the taking of the Big Spring spinedace, there are no protective regulations for spinedace habitat under State law.

E. Other natural or manmade factors affecting its continued existence. The introduction of exotic organisms, especially fishes, is detrimental to the

Big Spring spinedace. The introduction of mosquitofish (*Gambusia affinis*) into Big Spring contributed to the extirpation of the spinedace at that locality (Miller, 1961; Miller and Hubbs, 1960). The introduction of exotic fishes is usually detrimental to native fishes because of competition, predation, or the introduction of exotic parasites and diseases (Deacon *et al.*, 1964; Hubbs and Deacon, 1964). Although unlikely, accidental introduction of non-native game fishes from two existing upstream reservoirs could possibly occur during high runoff if either reservoir overflowed.

Because of the restricted range of the Big Spring spinedace in Condor Canyon, a severe flood could also eliminate the spinedace from parts or all of its habitat (Hardy, 1980b). This problem could be reduced or possibly alleviated by renovation of former habitat and reintroduction of the Big Spring spinedace.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list the Big Spring spinedace as threatened with critical habitat. Threatened status is appropriate because, although not immediately in danger of extinction, the species is likely to become endangered if trends in population decline and habitat alteration continue. Proper and adequate management could prevent the species from becoming endangered. Reasons for critical habitat designation are discussed in the "Critical Habitat" section of this rule.

Critical Habitat

Critical habitat, as defined by Section 3 of the Act, means: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(a)(3) of the Act requires that critical habitat be designated to the maximum extent prudent and determinable concurrent with the determination that a species is endangered or threatened. Critical habitat is being designated for the Big Spring spinedace as follows: 4 stream

miles along Meadow Valley Wash in Condor Canyon, Lincoln County, Nevada, and a 50 foot riparian zone on either side of the stream. The 50 foot riparian zone along each side of the stream is included in the critical habitat designation because this zone is helpful in preventing runoff pollutants from entering the stream and in reducing siltation, and thereby protects the chemical and physical properties of the stream ecosystem. The vegetation in the riparian zone provides shading to the stream, which helps stabilize the water temperature and dissolved oxygen levels. The area proposed as critical habitat satisfies all known criteria for the ecological, behavioral, and physiological requirements of the subspecies. The area proposed includes most of the presently occupied habitat of this subspecies.

Section 4(b)(8) requires, for any proposed or final regulation that designates critical habitat, the inclusion of a brief description and evaluation of those activities (public or private) which may adversely modify such habitat or may be affected by such designation. Major alteration of the critical habitat could eliminate the Big Spring spinedace. Activities such as channelization, water diversion, or removal of groundwater could result in significant changes in the environment of the Big Spring spinedace. Any activity that would alter the existing chemical and physical characteristics of the aquatic habitat in Meadow Valley Wash could adversely impact the Big Spring spinedace. Such activities include overgrazing or removal of riparian vegetation thereby causing increased silt loads, lowering of the water table, and diversion of water from the main channel of the stream. The introduction of exotic fishes contributed to the decline and ultimately the extirpation of one population of the Big Spring spinedace. Any exotic fishes introduced into the critical habitat could alter the habitat of the Big Spring spinedace.

One Federal activity known to potentially affect critical habitat in Condor Canyon is the issuance of leases for livestock grazing on the Bureau of Land Management (BLM) lands that include approximately half of the total critical habitat. However, the grazing allotments are currently in non-use status. Any federally authorized increase in grazing (or reactivation of the current allotment) could result in overgrazing and the removal of riparian vegetation. This would result in siltation and reduce the ability of the soil to retain water, resulting in lower water levels. Removal of riparian vegetation

would also result in higher temperatures and reduced dissolved oxygen levels. If in the future such activities are proposed on Federal lands, coordination through Section 7 to ensure the protection of the spinedace will be necessary.

A Union Pacific Railroad line is present within the critical habitat area on BLM land in Condor Canyon. There are also several railroad bridge crossings in the area. The rail line has not been used by Union Pacific for several years and was proposed for abandonment at one time. Recently, the rail line was proposed as one of three alternative corridors to supply coal for the proposed White Pine Power Project (WPPP). The WPPP involves construction of a 1,500 megawatt coal-fired generating plant to be located at one of three sites in White Pine County, Nevada. Selection of the rail corridor alternative within the critical habitat area would require upgrading of the rail line and bridges. Possible selection of this alternative rail corridor and subsequent upgrading activities were addressed in a Section 7 consultation regarding the WPPP. Upgrading activities and use of the rail line were found to have the potential to adversely modify the proposed critical habitat. This rail line, however, is not the preferred corridor. The preferred corridor utilized the existing Nevada Northern Railroad Line. It is not expected that the Union Pacific Railroad line on BLM land within the proposed critical habitat will be the corridor selected as the supply route for the WPPP.

An irrigation diversion which supplies private lands below the mouth of Condor Canyon is present on BLM land near the downstream end of the canyon. The BLM does not anticipate any changes in the irrigation diversion that would affect the proposed critical habitat. BLM management of the irrigation diversion is expected to be compatible with the designation of critical habitat.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as critical habitat. The Service has considered the critical habitat designation in light of relevant information obtained through the comment process and concludes that no adjustments to the area proposed as critical habitat is appropriate.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for

Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 and are now under revision (see proposal at 48 FR 29990; June 29, 1983). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. With the exception of grazing allotments mentioned above, there is no known Federal involvement expected for this species.

The Act and its implementing regulations, found at 50 CFR 17.21 and 17.31, set forth a series of general prohibitions and exceptions that apply to all threatened fish or wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that had been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. For threatened species there are also permits for zoological

exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

Section 4(d) of the Act authorizes the Secretary to issue special regulations for a threatened species that are necessary and advisable for the conservation of the species. A special rule is included in this regulation, which will allow take for certain purposes in accordance with State game and fish laws and regulations. The State laws and regulations in Nevada prohibit taking of the Big Spring spinedace without a valid State collecting permit. This special rule, adopted substantially as proposed, will allow for more efficient conservation activities for the species and thus enhance the status of the species. Without this special rule, all the prohibitions of endangered status would apply to the species. The Big Spring spinedace is threatened primarily by habitat disturbance or alteration, not by intentional, direct taking of the species. The State's collection permit system is more adequate to protect the species from excessive taking. For these reasons the Service concludes that the special rule is necessary and advisable for the conservation of the Big Spring spinedace.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an environmental assessment, as defined under authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to Section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

Regulatory Flexibility Act and Executive Order 12291

The Department of the Interior has determined that designation of critical habitat for this species will not constitute a major action under Executive Order 12291 and certifies that this designation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). There is no known involvement of Federal funds or permits for activities occurring on private lands within the critical habitat for the spinedace. This designation of critical habitat is not expected to result in any significant economic impacts to activities occurring on Federal land. These determinations are based on a Determination of Effects that is

available from the Regional Director, U.S. Fish and Wildlife Service, Suite 1692, Lloyd 500 Building, 500 NE. Multnomah Street, Portland, Oregon 97232. This rule contains no information collection or recordkeeping requirements as defined by the Paperwork Reduction Act of 1980.

Literature Cited

- Deacon, J.E., C. Hubbs, and B.J. Zahuranec. 1964. Some effects of introduced fishes on the native fish of southern Nevada. *Copeia* 1964:384-388.
- Hardy, T. 1980a. The inter-basin area report—1978. *Proc. Desert Fishes Council* 10:5-21.
- Hardy, T. 1980b. Interbasin report to the Desert Fishes Council—1979. *Proc. Desert Fishes Council* 11:68-70.
- Hubbs, C., and J.E. Deacon. 1964. Additional introductions of tropical fishes into southern Nevada. *Southwestern Nat.* 9:249-251.
- Hubbs, C.L., R.R. Miller, and L.C. Hubbs. 1974. Hydrographic history and relict fishes of the north-central Great Basin. *Memoirs California Acad. Sci.* 7:1-259.
- Miller, R.R. 1961. Man and the changing fish fauna of the American Southwest. *Pap. Michigan Acad. Sci. Arts Letters* 46:365-405.
- Miller, R.R., and C.L. Hubbs. 1960. The spiny-rayed cyprinid fishes (Plagopterini) of the Colorado River System. *Misc. Publ. Mus. Zool., Univ. Michigan* 115:1-39.
- Uyeno, T., and R.R. Miller. 1973. Chromosomes and the evolution of the plagopterin fishes (Cyprinidae) of the Colorado River System. *Copeia* 1973:776-782.

Author

The primary author of this final rule is Dr. Randy M. McNatt, U.S. Fish and Wildlife Service, 4600 Kietzke Lane, Building, C, Reno, Nevada 89502 (702/784-5227 or FTS 470-5227).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulations Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 [16 U.S.C. 1531 *et seq.*].

2. Amend § 17.11(h) by adding the

following, in alphabetical order under "FISHES," to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
FISHES							
Spinedace, Big Spring ..	<i>Lepidomeda mollispinis pratensis</i> .	U.S.A. (NV)	Entire	T	173	17.95(e)...	17.44(i)

3. Add the following as a new paragraph (i) to § 17.44:

§ 17.44 Special rules—fishes

* * * * *

(i) Big Spring spinedace, *Lepidomeda mollispinis pratensis*.

(1) All the provisions of § 17.31 apply to this species, except that it may be taken in accordance with applicable State fish and wildlife conservation laws and regulations in the following instances: educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Act.

(2) Any violation of applicable State fish and wildlife conservation laws or regulations with respect to this species will also be a violation of the Endangered Species Act.

* * * * *

4. Amend § 17.95(e) by adding critical habitat of the Big Spring spinedace as follows: (The position of this entry under § 17.95(e) will follow the same sequence as the species occurs in § 17.11.)

§ 17.95 Critical habitat—Fish and wildlife.

(e) * * *

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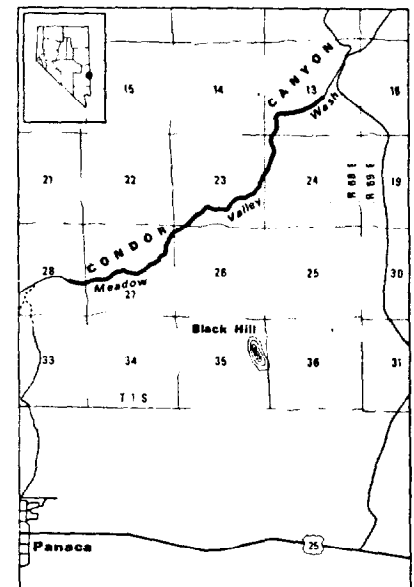
Big Spring Spinedace (*Lepidomeda mollispinis pratensis*)

Nevada. Condor Canyon, Lincoln County. Four stream miles of Meadow Vally Wash and 50 feet on either side of the stream as it flows through the following sections: T. 1 S., R. 68 E., Sections 13, 23, 24, 26, 27, and 28.

Known constituent elements include clean permanent flowing spring-fed stream with deep pool areas and shallow marshy areas along the shore and the absence of exotic fishes.

BIG SPRING SPINEDACE

Lincoln County, NEVADA



Dated: February 27, 1985.

J. Craig Potter,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 85-7357 Filed 3-27-85; 8:45 am]

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